# Governance, scale, and integration: building community health worker systems ready for artificial intelligence

Artificial intelligence (AI) is rapidly entering community-based primary health care in areas such as diagnostics, logistics, and clinical decision making. Community health worker (CHW) programmes operate within these broader systems, and their ability to adopt AI meaningfully depends on whether the surrounding layers of care—clinics, supervision, supply chains, data systems, and governance—are ready to integrate it.

Within CHW programmes, the promise of AI is not to replace human care but to assist it by reducing administrative burden, improving consistency, and supporting safer decisions. However, this promise will not be realised through technology alone. Previous waves of digital health innovation outpaced government institutionalisation, producing disconnected tools and pilots.[1,2] Although some innovations delivered short-term gains, fragmentation undermined sustainability, accountability, and equitable learning at scale. AI now risks following the same trajectory, not because the tools are inherently flawed, but because the associated systems are not yet designed to own, govern, and scale them.

Beyond these implementation barriers lies a bigger risk: starting with the technology before understanding what the system requires. An AI cancer-screening tool deployed in areas without oncologists, imaging tools, or treatment pathways, yields poor results. Success is often measured by pilot launches rather than by improved health outcomes.[3] Without systematic safety checks—assessing bias, error propagation, and contextual validity—AI might be considered successful while burdening CHWs, entrenching inequity, or fragmenting systems. The real danger is not failure, but scaling on terms that undermine care, trust, and professional judgement.

We surveyed 28 non-governmental organisations (NGOs) operating CHW programmes across 18 countries through Community Health Impact Coalition (appendix pp 1–2). Among the NGOs, 17 (61%) are piloting AI-enabled solutions, yet only one (4%) reports meaningful integration within local or national public health-care systems. Furthermore, 13 (48%) of the existing AI initiatives are led by NGOs or private entities with government approval, five (19%) operate with no government involvement, and only six (22%) are co-led with government partners, none of which are solely owned by governments. This gap reflects an important challenge: ensuring that AI solutions designed to assist CHWs become part of public infrastructure—co-owned and sustained by health systems and safeguarded by appropriate governance mechanisms—rather than a series of isolated innovations.

Our analysis highlights three system-level conditions required for AI interventions to move from promise to durable public value: ensuring public stewardship, collective learning over isolated pilot projects, and system and workforce readiness for scale.

To ensure public stewardship, AI solutions should be owned and governed as public infrastructure if they are to function at scale, yet this is not the case at present. This gap reflects a structural reality rather than disinterest. Ministries serving millions are often absorbed by immediate operational pressures (eg, stockouts, salary arrears, and infrastructure gaps),[4] which do not diminish responsibility for stewardship but underscore the importance of sustained support by public leadership of externally financed AI initiatives. In parallel, many NGOs and private-sector partners run pilot projects with little more than government notification rather than shared ownership. The result is a missing middle ground between experimentation and scale: tools are launched, but their evaluation and system-level implications are rarely examined with public counterparts.

Ensuring effective integration of AI into public health systems requires a shift in how these solutions are implemented. Where domestic capacity is low, multilateral and regional bodies, such as WHO, can scaffold stewardship by helping governments define priorities and baseline governance frameworks while in-country capability is built. Such practice requires enabling governments to set national AI priorities and that pilot projects align at the outset, establishing safety checks and clear approval pathways, and creating named units and budget lines for ownership and scale. These steps turn AI from a series of pilot projects into a public service that is governed, funded, and operated as part of routine care.

Freddie Reed (photographer), Medic

*Lancet Prim Care* 2026; 2: 100144

Published Online March 31, 2026
https://doi.org/10.1016/j.lanprc.2026.100144

See Online for appendix

Regarding collective learning over isolated pilot projects, organisations currently operate individually rather than collaboratively—a pragmatic response to health systems not yet equipped to absorb AI at scale. These efforts can generate evidence on AI use cases and their effectiveness for wider public adoption; however, in the absence of shared infrastructure, standards, and coordination, they risk entrenching parallel, non-interoperable data systems.

Although innovation is de-risked in pilot projects, their impact depends on being designed for scale from the outset; aligned to national priorities; integrated with existing data systems and care pathways; and grounded in realistic lifecycle costing for adaptation, maintenance, updates, and eventual decommissioning. Otherwise, pilot projects rarely become viable or scalable. AI readiness depends first on robust, interoperable community health data systems within national architectures.[5] Each missed year exponentially widens the gap between what is technically possible and what systems can deliver. If the status quo persists, more pilot projects will emerge, which will not address the problem of adoption at scale, requiring a shift in how evidence is produced. Rather than validating AI through isolated, long-cycle trials, research should involve an evidence-to-action cycle, iteratively testing performance, use, and impact in real-world settings. A shared learning architecture is needed wherein insights compound across implementers and feed directly into system design, making readiness visible and guiding appropriate investment.

With respect to system and workforce readiness for scale, even with public stewardship and collective learning in place, AI will not achieve the intended effect if frontline systems and workers cannot absorb it. For AI to support CHWs in practice, health systems and workforces need to be ready to use it safely and effectively, even in resource-constrained, low-data environments.

Survey respondents identified AI's near-term value in strengthening supervision, workforce support, and use of routine data. Although 16 (57%) of NGOs rated their own AI capacity as robust, nearly two-thirds judged the systems they operate within as not ready or only minimally ready to engage with AI for CHWs, echoing earlier digital health lessons that tools underperform when they assume coherence that does not yet exist.[6]

Readiness for AI at scale is also inseparable from the workforce's readiness. In a world facing a projected shortfall of 43 million health-care workers by 2030,[7] CHWs bridge gaps in care cost-effectively and often without pay.[8] AI solutions can potentially ease these pressures but only if embedded in routine care and used by a supported, professionalised CHW workforce.[9] Without salaried, skilled, supplied, and supervised CHWs equipped with appropriate hardware to use AI ethically, we leave what could be the world's largest care delivery network—and one of its most powerful early-warning systems—unplugged.

To avoid fragmentation, AI should be treated as part of community health system strengthening: embedded into workflows, integrated with national information systems, and used to accelerate (not bypass) professionalisation. In practice, AI deployments should be paired with funded training curricula, ethical use guidelines, protected time for continuous learning and upskilling, supervisory dashboards, and clear competency standards for safe use. When these conditions are integrated from the start, AI becomes a lever for workforce development, rather than an add-on tool that widens gaps in skill, confidence, and accountability.

The current wave of AI-for-CHW activity reflects a moment of extraordinary technological possibility colliding with primary health-care systems that were never designed to absorb exponential tools. Seizing the opportunity requires shifting from project-based deployment to deliberate system building, wherein tools are designed to integrate with national priorities, workflows, and governance structures, rather than operating alongside them. Success depends on aligning responsibilities: governments should act as stewards and enforce rules; donors should fund long-term integration and scale; NGOs should align with public architectures. Most importantly, CHWs should shape the tools they use, and vendors should operate within public rules rather than setting them.

With these shifts, AI will become not just a co-pilot for one of the world's largest and most under-resourced frontline workforces but a bridge between technological progress and the lived realities of communities. Done well, AI will not replace human care, but rather strengthen it. AI offers a rare opportunity to translate exponential innovation into health equity at scale, connecting the world's most powerful tools to the people who need them most.

This Comment is an invitation to governments, implementers, funders, and researchers to align around stewardship, system readiness, and professionalised community health work. The choice remains: repeat the fragmented failures of past digital health waves or ensure that this one strengthens health systems from the frontline out.

DP reports serving as a short-term consultant for Vanna Health and WHO and receiving training and travel support from the Center for Primary Care (Harvard Medical School) for participating in an Executive Leadership Primary Health Care Training Course, and from the Fleming Initiative and the Financing Alliance for Health to participate in gatherings and board meeting with Community Health Impact Coalition (CHIC). He also serves as an unpaid board member of CHIC, the Financing Alliance for Health, and the Hyde Square Task Force. DM reports serving as consultant for CHIC. All other authors declare no competing interests.

Copyright © 2026 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

*Community Health Impact Coalition Research Group*†
**james.odonovan@joinchic.org**

†All contributing collaborating authors are listed in the appendix (pp 3–4).

Community Health Impact Coalition, Raleigh, NC 27609, USA

1 Bhatia A, Matthan R, Khanna T, Balsari S. Regulatory sandboxes: a cure for mHealth pilotitis? *J Med Internet Res* 2020; **22:** e21276.

2 Shuchman M. The promise and pitfalls of global mHealth. *CMAJ* 2014; **186:** 1134–35.

3 Goisauf M, Cano Abadía M, Akyüz K, et al. Trust, trustworthiness, and the future of medical AI: outcomes of an interdisciplinary expert workshop. *J Med Internet Res* 2025; **27:** e71236.

4 Sheikh K, Sriram V, Rouffy B, Lane B, Soucat A, Bigdeli M. Governance roles and capacities of ministries of health: a multidimensional framework. *Int J Health Policy Manag* 2021; **10:** 237–43.

5 WHO Regional Office for Europe. Artificial intelligence is reshaping health systems: state of readiness across the WHO European Region. Nov 19, 2025. https://iris.who.int/server/api/core/bitstreams/d2913ae3-c8e0-4a46-b6ff-b4b121e936f4/content (accessed Jan 8, 2026).

6 Newton-Lewis T, Nanda P. Problematic problem diagnostics: why digital health interventions for community health workers do not always achieve their desired impact. *BMJ Glob Health* 2021; **6** (suppl 6)**:** e005942.

7 GBD 2019 Human Resources for Health Collaborators. Measuring the availability of human resources for health and its relationship to universal health coverage for 204 countries and territories from 1990 to 2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet* 2022; **399:** 2129–54.

8 Katzen LS, Baskin C, Vaughan K, et al. Time to prioritise community health workers: a decade of cost-effectiveness evidence. *Lancet Prim Care* 2025; **1:** 100076.

9 Ballard M, Dahn B, O'Donovan J, et al. One term to transform: universal health coverage through professional community health workers. *Lancet* 2025; **405:** 762–64.